

# Memorandum

**To:** DISTRICT DIVISION CHIEFS  
Maintenance and Operations

Date: May 14, 1999

**File:**

**From:** DEPARTMENT OF TRANSPORTATION  
Traffic Operations  
Mail Station 36

**Subject:** Standard Charging Practices for Traffic Signal Controllers Provided by Encroachment Permit

This memorandum supersedes the attached prior policy memorandum dated August 29, 1983, and establishes revised procedures for providing traffic signal controllers on State highways. A uniform and streamlined process allowing the California Department of Transportation (Caltrans) to acquire, test, deliver, and properly account for controller assemblies is being implemented to provide high quality and dependable traffic signal controllers for all projects involving signal systems on State highways.

Caltrans orders Model 170 controllers in bulk, based on projected annual construction and maintenance needs for new or modified signal systems. To minimize costs, these state controllers are tested in-groups before being stocked in the warehouse for future distribution to the districts. Apart from that process however, controllers intended for use in permit projects are usually purchased separately by the project proponents and are then tested individually by Caltrans. Consequently, the Transportation Laboratory ends up expending a larger than necessary portion of their limited resources to test and approve a small fraction of the total number of controllers tested each year. This inefficient process delays construction on permit projects and, in some cases may result in the installation of untested controllers. Caltrans, in order to avoid the above-cited problems, will henceforth provide all controller assemblies both for district use and for Encroachment Permit projects.

Caltrans will, for cooperative agreement projects and other locally funded projects involving traffic signal systems on State highways, provide controllers to local agency permittees as part of any Caltrans' contribution to the project if that obligation is so stated in an executed agreement, or if a Permit Engineers Evaluation Report (PEER) or Project Study Report/Project Report (PSRIPR) states that Caltrans will provide the controller as a State furnished item. A fee will be charged for privately funded projects.

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Please notify applicants of this policy change and request that their design engineers make necessary changes to project plans, specifications and estimates. Guidelines that identify appropriate charging practices for ordering controllers from the State warehouse and the Permit Special Provisions that specify fees and the processes for obtaining controllers are attached.

If you have questions you may contact Mr. Asif Haq, Chief, Office of Commercial Vehicle Operations and Permits, Calnet 464-6099, or Mr. Paul Cavanaugh, Chief, Encroachment Permit Branch, at Calnet 464-6232.

*original signed by Hamed Benouar*

**HAMED BENOUAR**

Pro gram Manager

Traffic Operations

## **GUIDELINES**

### **Privately Funded Projects Without A Cooperative Agreement . Project Proponent Pays Costs for Controllers**

A current fee of \$5,600.00 per controller assembly has been established, which includes the controller unit, cabinet assembly and all auxiliary equipment. This fee will be updated annually, if necessary, after determining the average actual cost for the State to acquire, test, stock and ship each complete unit. The fee should be included in the deposit for permit inspection that is paid prior to issuance of the encroachment permit, but may also, be submitted immediately prior to performing work on a signal system. In addition, the districts should collect a fee for 15 hours of inspection by TransLab to cover their costs to test the remainder of the traffic signal components that are supplied by a contractor for each signal system. Districts should also determine and charge additional fees covering the actual loaded cost to deliver, install and turn on traffic signal controllers.

### **Other Locally funded Projects . Caltrans Pays Costs For Controllers**

When a locally funded project does not have a cooperative Agreement, the districts should collect a fee from the local agency contractor for 15 hours of inspection by TransLab to cover their costs to test the remainder of the traffic signal components that are supplied by a contractor for each signal system. Districts should also determine and charge additional fees covering the actual loaded cost to deliver, install and turn on traffic signal controllers.

### **Cooperative Agreement Projects . Caltrans Pays Costs For Controllers**

The traffic signal controllers, and all other actual costs incurred by Caltrans, are charged against the appropriate Cooperative Agreement Expenditure Authorization.

### **Charging Procedures To Order Controller Assemblies From The State Warehouse**

To allow time for delivery to the District, controller assemblies shall be ordered from the Sacramento warehouse a minimum of 10 working days before a permittee plans to pick up an assembly in the district (controller not included). Caltrans Maintenance or Traffic staff will deliver actual controllers and auxiliary equipment to job sites at the time of a scheduled signal turn on.

As each controller assembly is ordered, the districts shall instruct the Caltrans warehouse in Sacramento to charge the equipment to the Encroachment Permit Expenditure Authorization (EA) 937182, using Object Code 118. A Special Designation (SD) of 7CONTROL must also be used if the permittee has paid a fee for the equipment, and SD 7EXCONTROL is used for all locally funded projects not constructed under a cooperative agreement.

For cooperative agreement projects, the district should instruct the warehouse to charge the equipment to the appropriate Cooperative Agreement EA, with any applicable SD identified for the project. Do not use an Encroachment Permit EA or SD.

## **SPECIAL PROVISION FOR TRAFFIC SIGNAL CONTROLLERS**

Please include one of the attached Special Provisions for either fee chargeable or fee exempt controllers in all new permits where controller assemblies are to be installed. If a permittee is charged a fee for the controller, the provision will identify the fee amount in addition to instructions for requesting delivery of the controller assembly. Where Caltrans is providing the controller at no cost, the fee exempt provision contains only the delivery instructions.

### **Use In Permits For Privately Funded Projects**

The permittee shall pay ~5,600.00 to Caltrans to compensate the State of California for the costs incurred in obtaining, testing and supplying a Traffic Signal Controller Assembly. This fee does not supercede any other fee charged by Caltrans for review, inspection or field work performed by department staff as a result of the permitted work. If the fee has not been paid prior to permit issuance, full payment shall be made to the district cashier prior to starting any traffic signal work authorized by this permit, and at least of 30 (thirty) days before the controller is needed for installation. The Permittee shall give the State Representative not less than 10 (ten) working days written advance notice prior to picking up the cabinet assembly (without the controller). When notified by the permittee, Caltrans will provide the permittee with a time and location for picking up that cabinet assembly. Caltrans will subsequently deliver the actual controller to the job site at the prearranged time of signal turn on.

### **Use In Permits When A Traffic Signal Controller Assembly Is Provided At No Cost**

The Permittee shall give the State Representative at least 10 (ten) working days written advance notice prior to picking up the cabinet assembly (without the controller). When notified by the permittee, Caltrans will provide the permittee with a time and location for picking up that cabinet assembly. Caltrans will deliver the actual controller to the job site at the prearranged time of signal turn on.

## Encroachment Permit Fees For Traffic Signal Controllers And Inspection

TYPE OF PROJECT	COSTS PAID BY PERMITTEE		
	CONTROLLER	INSPECTION	DELIVERY AND INSTALLATION
<b>PRIVATELY FUNDED</b>	<b>YES</b>	<b>YES</b>	<b>YES</b>
<b>LOCALLY FUNDED WIO AGREEMENT</b>	<b>NO</b>	<b>YES (Paid By Contractor)</b>	<b>YES (Paid By Contractor)</b>
<b>LOCAL FUNDED COOPERATIVE AGREEMENTS WITH STATE PARTICIPATION</b>	<b>NO (part or State Contribution)</b>	<b>NO (Part Of State Contribution)</b>	<b>NO (Part Of State Contribution)</b>
<b>LOCAL FUNDED COOPERATIVE AGREEMENTS WIO STATE PARTICIPATION</b>	<b>NO</b>	<b>YES</b>	<b>YES</b>

## MEMORANDUM

To: **All District Directors**

**Date:** August 29, 1983

Attention Traffic Operations Engineers  
Maintenance Engineers

File No:

**From: DEPARTMENT OF TRANSPORTATION  
Director's Office**

**Subject:** Model 170 Traffic Controller Assemblies

### PURPOSE

To establish policy for the use of State—furnished Model 170 Traffic Signal Controller Assemblies on the State highway system (SHS).

To provide procedures for State—furnishing these controller assemblies.

### BACKGROUND

In the mid – 1970's, Caltrans, with New York, designed a traffic signal controller assembly --the Model 170 -- that provided complete interchangeability of controller units, cabinets, detector sensor units, isolation modules, switchpacks, conflict monitors, flashers and MODEMS.

Caltrans has had six years of favorable experience with the Model 170. Because of demonstrated significant improvement over conventional controller assemblies in cost, reliability, flexibility of operation and ease of maintenance, Caltrans has standardized on the Model 170.

Since 1977, Caltrans has been purchasing and warehousing the Model 170 in OBM warehouses. From this source, the traffic controller signal assemblies can be requisitioned by the Districts.

### POLICY

Only Model 170 Traffic Signal Controller Assemblies will be installed on the SHS.

This policy applies to each new and existing traffic signal including those at the intersection of freeway ramps and local streets, whether they be maintained by the State or by a local agency.

All new traffic - actuated signals shall use Model 170 Traffic Signal Controller Assemblies. Consideration shall be given to using Model 170 for a pretimed signal where pre - empton or actuated phases are involved.

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All electromechanical traffic - actuated controller assemblies shall be replaced with Model 170's. Solid - state (Type 90) traffic - actuated controller assemblies shall be replaced with Model 170's as they become obsolete or develop high maintenance costs. Electromechanical pretimed controller assemblies may also be replaced with Model 170's.

## IMPLEMENTATION

### State Project

On a State project, the cost of the controller assemblies will be identified in the project report and the preliminary report and will be included in the PS&E. Funding will be from the appropriate allotment.

If the State project is cooperatively financed by the State and a local agency, in accordance with the provisions of the Traffic Manual, the cost of the controller assembly will be included in the cost of the project.

### Local Agency Project

The State will furnish a Model 170 Controller Assembly at no cost to **the** local agency if:

- a) The project includes the replacement of an existing controller assembly in advance of the State's planned replacement. The approval document will be the encroachment permit.
- b) The project includes the installation of new signal(s) or the modification of existing signal(s) and the project is financed solely by the local agency. The approval document will be the project report.

### Private Party Project (Permit Project)

If, as a mitigating factor, the project requires a private party to install a new signal or to relocate or modify an existing controller assembly, the State, in the encroachment permit, will require the private party to install a Model 170. The private party must obtain the Model 170 from the private sector and have it tested by the State's Transportation Laboratory——both at his expense.

However, when a private party is relocating an existing controller assembly as part of a signal modification and the controller assembly **is** of a type that is scheduled for replacement, the private party will be directed to install a State - furnished Model 170.

## PROCEDURES

### Ordering

- a) All Model 170 Controller Assemblies that are State - furnished will be requisitioned from the Office of Business Management (OBM) warehouse inventory on standard local request (LR EDP) forms.
- b) Assemblies that are back ordered by the warehouse may be purchased by the Districts directly from manufacturers/suppliers if they are urgently needed -- through individual District contract delegations, with prior approval from Materiel Operations Branch.
- c) Assemblies that are not routinely stocked by the warehouse will be requisitioned from OBM on purchase estimates or through individual District contract delegations.

### Charges and Coding

- a) When Model 170 Controller Assemblies are requisitioned for either a State or State/Local Agency project, the appropriate EA will be used and the assemblies will be transferred by the warehouse on a Transaction Code 200 (TC 200).
- b) Assemblies may also be requisitioned at any time as a transfer from OBM warehouse inventory to a District's inventory. EA's will not be used in these transactions and the warehouse will transfer assemblies on a TC 220.

Maintenance should order all their requirements on a TC 220.

Districts will transfer assemblies from their inventory to specific projects on a TC 100 using an appropriate **EA**.

- c) When a controller assembly is to be supplied at no cost to a local agency or to a private party, the District can take the assembly from their own inventory or requisition one from OBM on a TC 220 for shipment to the District for pretest. In either case, the assembly will be transferred out of the District's inventory to the local agency or to the private party on a TC 451.

Permit numbers will be used on these documents.

*original signed by J,R, Cropper*

R. G. ADAMS  
Deputy Director  
Highway Maintenance and  
Transportation Operations

HLBegin : sb  
bcc: HLBegin  
WAJHoversten  
KCGilbert  
HFox – FOC  
SCarlson – FOC  
Rnevis – OBM  
All Dist. Material Managers  
Director's Files  
Director's X-Ref.